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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/776,886

02/11/2004

Hee-Jueng Lee

5649-958DV

3395

20792

7590

01/21/2005

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EXAMINER

VU, DAVID

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/776,886	Applicant(s) LEE ET AL.	
	Examiner DAVID VU	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/085,369.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/11/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 14-18 and 20-23 are rejected under 35 U. S. C. 102(b) as being anticipated by Yang et al. (US Pat. 5,512,507, herein after Yang).

Regarding claims 14 and 20, Yang in figure. 5 discloses an integrated circuit substrate ROM device (see Abstract), comprising: an integrated circuit substrate 30 including a planar face; a planar insulating layer 32 extending along the planar face of the integrated circuit substrate 30 (col. 3, lines 53-55); a ROM programming region in the integrated circuit substrate beneath the insulating layer (see Abstract); a first planar conductive layer pattern 34/36 including a sidewall (col. 3, line 61 through col. 4, line 12), extending along the planar insulating layer opposite the planar face of the integrated circuit substrate 30; an oxide layer 40 on the integrated circuit substrate 30 and directly on the sidewall of the first planar conductive layer pattern 34/36 (col. 4, lines 21-26); a buried doping layer 38 in the integrated circuit substrate 30 beneath the thermal oxide layer 32 (col. 4, lines 13-16); and a second conductive layer pattern 43 on at least a portion of the thermal oxide layer 32 and on at least a portion of the first planar conductive layer pattern 34/36 (col. 4, lines 28-36).

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Regarding claims 15 and 21, Yang discloses that the second conductive layer pattern 43 is directly on the first planar conductive layer pattern opposite the insulating layer (fig. 5).

Regarding claims 16 and 22, Yang discloses that the first planar and second conductive layer patterns (34/36 and 42) both comprise polysilicon (col. 3, lines 61-67 and col. 4, lines 28-36).

Regarding claims 17, 18 and 23, Yang discloses a ROM programming region in the integrated circuit substrate, wherein the programming region comprises an implant region 38 (col. 4, lines 13-16).

2. Claims 14-24 are rejected under 35 U. S. C. 102(b) as being anticipated by Kunitou (US Pat. 5,538,917).

Regarding claims 14, 17, 18, 20 and 23, Kunitou in figure. 3J discloses an integrated circuit substrate ROM device (col. 5, lines 1-2), comprising: an integrated circuit substrate 1 including a planar face; a planar insulating layer 11 extending along the planar face of the integrated circuit substrate 1 (col. 6, lines 20-24); a ROM programming region 6 in the integrated circuit substrate beneath the insulating layer 11 (col. 6, lines 20-24& 42-45); a first planar conductive layer pattern 12 including a sidewall (col. 6, lines 25-28), extending along the planar insulating layer opposite the planar face of the integrated circuit substrate 1; an oxide layer 7 on the integrated circuit substrate 1 and directly on the sidewall of the first planar conductive layer pattern 12 (col. 6, lines 25-26); a buried doping layer 6 in the integrated circuit substrate 1 beneath the thermal oxide layer 11 (col. 6, lines 42-45); and a second conductive layer pattern 13

on at least a portion of the thermal oxide layer 11 and on at least a portion of the first planar conductive layer pattern 12 (col. 6, lines 26-35).

Regarding claims 15 and 21, Kunitou discloses that the second conductive layer pattern 13 is directly on the first planar conductive layer pattern opposite the insulating layer 12 (fig. 3J).

Regarding claims 16 and 22, Kunitou discloses that the first planar and second conductive layer patterns (12 and 13) both comprise polysilicon (col. 6, lines 32-34).

Regarding claims 19 and 24, Kunitou discloses that the second conductive layer pattern 13 is not directly on the sidewall of the first conductive layer pattern 12 (fig. 3J).

Regarding the limitation "thermal oxide..." and "buried doping..." (claims 14 and 20), such limitation does not further define the structure as instantly claimed, nor serve to distinguish over Yang and Kunitou. Note that a "product by process" claim is directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessmann*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wertheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); *In re Marosi et al*, 218 USPQ 289; and particularly *In re Thorpe*, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that applicant has the burden of proof in such cases, as the above caselaw make clear.

Response to Arguments

3. Applicant's arguments with respect to claims 14-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Vu whose telephone number is (571) 272-1798. The examiner can normally be reached on Monday-Friday from 8:00am to 5:00pm. If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DV

David Vu

January 12, 2004.



David Nelms
Supervisory Patent Examiner
Technology Center 2800